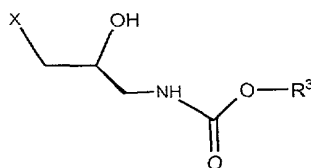


**WHAT IS CLAIMED IS:**

1. A (S)-secondary alcohol having a general structural formula:

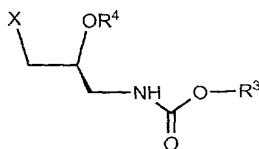


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wherein R<sup>3</sup> is C<sub>1</sub>-C<sub>10</sub> alkyl, and X is halogen, alkylsulfonyl, or arylsulfonyl, or a salt or hydrate thereof.

2. The (S)-secondary alcohol of claim 1 wherein R<sup>3</sup> is C<sub>4</sub>-C<sub>7</sub>  
10 tertiary alkyl.
3. The (S)-secondary alcohol of claim 2 wherein R<sup>3</sup> is tertiary  
butyl.
4. The (S)-secondary alcohol of claim 1 wherein X is Cl.  
15
5. The (S)-secondary alcohol of claim 1 having a name tert-butyl  
(2S)-3-chloro-2-hydroxypropylcarbamate.
6. The (S)-secondary alcohol of claim 1 in crystalline form.  
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7. An (S)-ester having a general structural formula:



- 5                    wherein R<sup>3</sup> is C<sub>1</sub>-C<sub>10</sub> alkyl, R<sup>4</sup> is C<sub>1</sub>-C<sub>5</sub> alkylcarbonyl, and X is halogen, alkylsulfonyl, or arylsulfonyl, or a salt or hydrate thereof.

8.            The (S)-ester of claim 7 where R<sup>3</sup> is C<sub>4</sub>-C<sub>7</sub> tertiary alkyl.

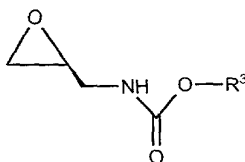
- 10            9.            The (S)-ester of claim 8 where R<sup>3</sup> is tertiary butyl.

10.            The (S)-ester of claim 7 where X is Cl.

11.            The (S)-ester of claim 7 having a name (1S)-2-[(tert-  
15    butoxycarbonyl)amino]-1-(chloromethyl)ethyl acetate.

12.            The (S)-ester of claim 7 in crystalline form.

13.            An (S)-epoxide having a general structural formula:



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wherein  $R^3$  is  $C_1$ - $C_{10}$  alkyl, or a salt or hydrate thereof, in crystalline form.

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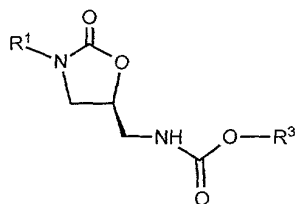
14. The (S)-epoxide of claim 13 wherein  $R^3$  is  $C_4$ - $C_7$  tertiary alkyl

15. The (S)-epoxide of claim 14 wherein  $R^3$  is tertiary butyl.

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16. The (S)-epoxide of claim 13 having a name tert-butyl (2S)-oxiranylmethylcarbamate.

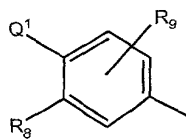
17. An (S)-intermediate having a general structural formula:



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wherein  $R^1$  is an aryl group, optionally substituted, and  $R^3$  is  $C_1$ - $C_{10}$  alkyl, or a salt or hydrate thereof.

18. The (S)-intermediate of claim 17 wherein  $R^1$  is:



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wherein  $Q^1$  is:  $R^{10}R^{11}N$ ,